



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

August 28, 2018

Robert Avalos  
Manager of Registrations  
Loveland Products, Inc.  
PO Box 1286  
Greeley, CO 80632

Subject: Registration Review Label Mitigation for Glufosinate  
Product Name: LPI Glufosinate Herbicide  
Application Date: 5-31-18  
EPA Registration Number: 34704-1071  
Decision Number: 541491

Dear Mr. Avalos:

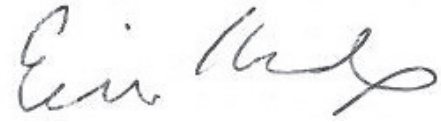
The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Glufosinate Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Lisa Pabel by phone at (703) 347-0459, or via email at [pabel.lisa@epa.gov](mailto:pabel.lisa@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is fluid and cursive, with the first name "Erik" being more prominent than the last name "Kraft".

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

[Note to reviewer: [Text] in brackets denotes optional text].

GLUFOSINATE-AMMONIUM	GROUP	10	HERBICIDE
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## LPI GLUFOSINATE HERBICIDE

A non-selective herbicide for post emergence broadcast use on canola, corn, cotton, and soybean designated as LibertyLink®. THIS PRODUCT may be used for weed control in non-LibertyLink® cotton when applied with a hooded sprayer in-crop. THIS PRODUCT may also be applied as a broadcast burndown application before planting or prior to emergence of any conventional or LibertyLink variety of canola, sweet corn, corn, cotton, olive, soybean, or sugar beet. THIS PRODUCT may be used for post emergence weed control in listed tree, vine, and berry crops. THIS PRODUCT may also be applied for potato vine desiccation.

<b>ACTIVE INGREDIENT:</b>	<b>% By Wt.</b>
Glufosinate-ammonium*:	18.19%**
<b>OTHER INGREDIENTS:</b>	<b>81.81%</b>
<b>TOTAL</b>	<b>100.0%</b>

\*CAS Number 77182-82-2

\*\*Equivalent to 1.67 pounds of active ingredient per U.S. gallon.

### KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

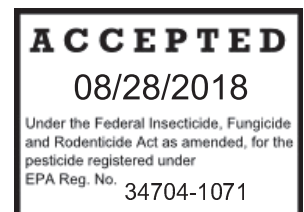
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

For Additional Precautionary Statements, Directions for Use, Storage and Disposal and Other Use Information, See Inside This Label Booklet.

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center.</li> <li>• Do not give anything by mouth to an unconscious person</li> </ul>
If in eyes:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
If on skin or clothing:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water.</li> <li>• Get medical attention.</li> </ul>
If inhaled:	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR A MEDICAL EMERGENCY INVOLVING LPI GLUFOSINATE 280 CALL: 1-866-944-8565. Note to Physician: If ingested, endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.</p>	

EPA Reg. No. 34704-1071  
EPA EST. No.  
NET CONTENTS: GAL (L)  
[EXP 02/18 Print Code to be placed here]

FORMULATED FOR:  
LOVELAND PRODUCTS, INC.  
P.O. BOX 1286  
GREELEY, COLORADO 80632-1286



LPI GLUFOSINATE HERBICIDE  
EPA REG. NO. 34704-1071  
**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING**

May be fatal if absorbed through skin. Causes moderate eye irritation. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Long-sleeve shirts, long pants, shoes, and socks.
- Chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, polyvinyl chloride (PVC)  $\geq$  14 mils, or Viton<sup>®</sup>  $\geq$  14 mils,
- Protective eyewear (goggles face shield or safety glasses).
- Wear a chemical resistant apron when mixing/loading and cleaning equipment.
- Applicators using groundboom equipment with open cabs to treat cotton must wear long-sleeve shirts, long pants, shoes, and socks plus chemical-resistant gloves.
- Mixer/loaders supporting groundboom applications to corn, canola, soybean, cotton, citrus fruit, pome fruit, stone fruit, and olives must wear long-sleeve shirts, long pants, shoes, and socks plus chemical-resistant gloves.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering control statement:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing / PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters or rinsate.

This pesticide is toxic to vascular plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions, this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods, which reduce, soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur to minimize water run-off is advised.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not use this product until you have read the entire label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

In the State of New York Only: Not For Use In Nassau and Suffolk Counties.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses; and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry-interval (REI) of 12 hours, with the exception of scouting activities in corn, canola, and soybeans, which has a 4-day REI. The REI for workers to move irrigation piping is 7 days for all crops.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls worn over short-sleeved shirt and short pants;
- Chemical resistant gloves such as barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton<sup>®</sup>  $\geq 14$  mils;
- Chemical resistant footwear plus socks; protective eyewear (goggles, face shield or safety glasses).

**IMPORTANT CROP SAFETY INFORMATION  
READ BEFORE USING THIS PRODUCT**

This product may be applied as a burndown treatment prior to planting or prior to emergence of any conventional or LibertyLink variety of canola, sweet corn\*, corn, cotton, olive, soybean or sugar beet\*.

[\*NOT FOR USE IN CALIFORNIA]

Post emergence row crop applications of this product may be made only to crops not sensitive to the active ingredient in this product. Loveland Products, Inc. does not warrant the use of this product on crops other than those designated as LibertyLink<sup>®</sup> safely withstand the application of this product.

The basis of selectivity of THIS PRODUCT in crops is the presence of a gene in LibertyLink crops which results in a plant that is not sensitive to the active ingredient of THIS PRODUCT. Crops not containing this gene will be sensitive to THIS PRODUCT and severe crop injury and/or death may occur. Do not allow spray to contact foliage or green tissue of desirable vegetation other than crops not sensitive to the active ingredient in this product.

THIS PRODUCT may be applied to conventional or other LibertyLink cotton sensitive to the active ingredient in THIS PRODUCT using a hooded sprayer.

Applications to trees, vines, and berries must avoid contact of THIS PRODUCT solution, spray, drift or mist with green bark, stems, or foliage, as injury may occur to trees, berries, and vines. Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. Contact of THIS PRODUCT with parts of trees, berries, or vines other than mature brown bark can result in serious damage.

**PRODUCT INFORMATION**

THIS PRODUCT is a water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds in LibertyLink<sup>®</sup> canola, LibertyLink<sup>®</sup> corn, LibertyLink<sup>®</sup> cotton, and LibertyLink<sup>®</sup> soybean, and in trees, vines, and berries. THIS PRODUCT may be applied for potato vine desiccation. THIS PRODUCT may also be applied as a broadcast burndown application before planting or prior to emergence of any conventional or LibertyLink variety of canola, sweet corn, corn, cotton, olive, soybean, or sugar beet.

THIS PRODUCT is only foliar-active with little or no activity in soil. Weeds that emerge after application will not be controlled. Apply THIS PRODUCT to actively growing weeds as described in the Weed Control directions for Row Crops section to get maximum weed control. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Necrosis of leaves and young shoots occur within 2 to 4 days after application under good growing conditions.

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- THIS PRODUCT is rainfast four (4) hours after application to most weed species; therefore, rainfall within four (4) hours may necessitate retreatment or may result in reduced weed control.
- Applications need to be made between dawn and 2 hours before sunset to avoid the possibility of reduced lambsquarters and velvetleaf control.
- Consult your local Cooperative Extension Service or Loveland Products, Inc. Representative for guidelines on the optimum application timing for THIS PRODUCT in your region.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to environmental conditions such as drought, cool temperatures, or extended periods of cloudiness.
- To maximize weed control, do not cultivate from 5 days before an application to 7 days.

**ROTATIONAL CROP RESTRICTIONS\***

Rotational crop planting intervals following application of THIS PRODUCT are listed below. Failure to comply with these restrictions may result in illegal residues in rotated crops.

<b>Rotational Crop</b>	<b>Plant Back Interval (Minimum Rotational Crop Planting Interval from Last Application)</b>
Canola, Sweet Corn, Corn, Cotton, Soybeans, and Sugar beets	0 days May be planted at any time
Root and Tuber Vegetables, Leafy Vegetables, Brassica Leafy Vegetables and Small Grains (barley, buckwheat, oats, rye, teosinte, triticale, and wheat).	70 Days
All Other Crops	180 Days

\*See *Application Directions for Potato Vine Desiccation* for Rotational Crop Restrictions specifically after application of THIS PRODUCT to potatoes.

**WEED RESISTANCE MANAGEMENT**

The active ingredient in LPI Glufosinate 280 is glufosinate-ammonium, which is a glutamine synthetase inhibitor (Group 10). A given weed population may contain or develop resistance to a herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance.

If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product. Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds have been found in your region.

Suspected herbicide-resistant weeds may be identified by these indicators:

1. Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
2. A spreading patch of non-controlled plants of a particular weed species; and
3. Surviving plants mixed with controlled individuals of the same species.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

- Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
- Rotate crops.
- Start the growing season with clean fields.
- Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.
- Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.

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- Control any weeds that may have escaped the herbicide application.
- Thoroughly clean field equipment between fields.
- Scout before and after application.

Report any incidence of non-performance of this product against a particular weed species to your Loveland Products, Inc. retailer, representative or call 1-888-574-2878. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

### SPRAY DRIFT MANGEMENT

#### MANDATORY SPRAY DRIFT MITIGATION

- When applying to crops via aerial application equipment, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor blade vortices. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- When applying to crops via aerial application equipment, applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- For aerial applications, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.
- For ground applications and aerial applications, select nozzle and pressure that deliver medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but do not exceed a boom height of 24 inches above target pest or crop canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions. Automated boom height controllers are recommended with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.
- For non-crop vegetation management ground applications, apply with the nozzle height no more than 4 feet above the ground or target vegetation, unless necessitated by the application equipment. Examples would include roadside, railroad, utility rights of way, forestry and other industrial vegetation management applications where safety or natural barriers obstruct application.

#### SPRAY DRIFT ADVISORIES

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

#### POLLINATOR ADVISORY STATEMENT

This product contains an herbicide. Follow all label directions and precautions to minimize potential off-target exposure in order to prevent effects to non-target plants adjacent to the treated site which may serve as habitat or forage for pollinators.

#### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

#### Controlling Droplet Size – Ground Boom

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

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- Pressure - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

Controlling Droplet Size – Aircraft

- Number of Nozzles - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations. AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.
- Nozzle Type - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Boom Length - Longer booms increase drift potential. Therefore a shorter boom length is recommended.
- Application Height - Application more than 10 ft. above the canopy increases the potential for spray drift.

BOOM HEIGHT

Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

Note: Local terrain can influence wind patterns. Every applicator needs to be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

**WEED CONTROL FOR ROW CROPS**

Rates in fl oz of formulated product per acre for the control of weeds at selected heights are shown in the weed control tables.

In weed populations with mixed species, apply at a rate needed for the species that requires the highest rate.

<b>Broadleaf Weed Control</b>					
<b>Weed Species</b>	<b>Maximum Weed Height or Diameter (Inches)</b>		<b>Weed Species</b>	<b>Maximum Weed Height or Diameter (Inches)</b>	
	<b>31.0 fl oz/A (0.40 lbs ai/A)</b>	<b>41.0 fl oz/A<sup>ab</sup> (0.54 lbs ai/A)</b>		<b>31.0 fl oz/A (0.40 lbs ai/A)</b>	<b>41.0 fl oz/A<sup>ab</sup> (0.54 lbs ai/A)</b>
Amaranth, Palmer <sup>2</sup>	NR	4"	Morningglory, sharppod <sup>2</sup>	2"	4"
Anoda, spurred	3"	5"	Morningglory, smallflower <sup>2</sup>	4"	6"
Beggarweed, Florida	4"	5"	Morningglory, tall <sup>2</sup>	6"	8"
Black medic	5"	7"	Mustard, wild	4"	6"



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<b>Broadleaf Weed Control</b>					
<b>Weed Species</b>	<b>Maximum Weed Height or Diameter (Inches)</b>		<b>Weed Species</b>	<b>Maximum Weed Height or Diameter (Inches)</b>	
	<b>31.0 fl oz/A (0.40 lbs ai/A)</b>	<b>41.0 fl oz/A<sup>ab</sup> (0.54 lbs ai/A)</b>		<b>31.0 fl oz/A (0.40 lbs ai/A)</b>	<b>41.0 fl oz/A<sup>ab</sup> (0.54 lbs ai/A)</b>
Blueweed, Texas	5"	7"	Nightshade, black	4"	6"
Buckwheat, wild	6"	7"	Nightshade, eastern black	6"	8"
Buffalobur	6"	7"	Nightshade, hairy	6"	8"
Burcucumber	6"	10"	Pennycress (stinkweed)	4"	6"
Catchweed bedstraw (cleavers)	2"	4"	Pigweed, redroot <sup>2</sup>	3"	4"
Carpetweed	4"	6"	Pigweed, prostrate <sup>2</sup>	3"	4"
Chickweed, common	6"	8"	Pigweed, spiny <sup>2</sup>	3"	4"
Cocklebur, common	6"	14"	Pigweed, smooth <sup>2</sup>	3"	4"
Copperleaf, hophornbeam	4"	6"	Pigweed, tumble <sup>2</sup>	3"	4"
Cotton, volunteer <sup>1</sup>	6"	8"	Puncturevine	4"	6"
Croton, tropic	3"	5"	Purslane, common	2"	4"
Croton, wooly	2"	4"	Pusley, Florida	S	3"
Eclipta	4"	6"	Ragweed, common	6"	10"
Devil's claw	2"	4"	Ragweed, giant	6"	12"
Fleabane, annual	6"	8"	Senna coffee	4"	6"
Gallinsoga, hairy	6"	8"	Sesbania, hemp	6"	8"
Galinsoga, small flower	6"	7"	Shepard's Purse	6"	8"
Groundcherry, cutleaf	4"	5"	Sicklepod (java bean)	4"	6"
Geranium, cutleaf	4"	6"	Sida, prickly	4"	5"
Hempnettle	4"	6"	Smartweed, Pennsylvania	6"	14"
Horsnettle, Carolina <sup>3</sup>	2"	4"	Smellmelon	4"	6"
Jimsonweed	6"	10"	Sowthistle, annual	6"	8"
Knotweed	3"	5"	Soybeans, Volunteer <sup>1</sup>	6"	8"
Kochia <sup>2</sup>	4"	6"	Spurge, prostrate	2"	4"
Ladysthumb	6"	14"	Spurge, spotted	2"	4"
Lambsquarters, common <sup>2</sup>	4"	6"	Starbur, bristly	4"	6"
Mallow, common	4"	6"	Sunflower, common	6"	14"
Mallow, Venice	6"	8"	Sunflower, prairie	3"	5"
Marestail	S	6 to 12"	Sunflower, volunteer	6"	10"
Marshelder, annual	4"	6"	Thistle, Russian <sup>3</sup>	S	6 to 12"
Morningglory, entireleaf <sup>2</sup>	6"	8"	Velvetleaf <sup>2</sup>	3"	4"
Morningglory, ivyleaf <sup>2</sup>	6"	8"	Waterhemp, common <sup>2</sup>	NR	5"
Morningglory, pitted <sup>2</sup>	6"	8"	Waterhemp, tall <sup>2</sup>	NR	5"

<sup>a</sup> In cotton, this product may be applied at 41 fl oz/A (0.54 lbs ai/A) three times per year.

<sup>b</sup> Do not apply more than 31 fl oz/A (0.40 lbs ai/A) of this product post emergence in a single application to canola and corn.

S Indicates suppression

<sup>1</sup> Volunteer LibertyLink crops from the previous season will not be controlled.

<sup>2</sup> For applications to com, tank mixing with atrazine may enhance weed control of this species.

<sup>3</sup> May require sequential applications for control.

NR not recommended

<b>Grass Weed Control</b>					
<b>Weed Species</b>	<b>Maximum Weed Height or Diameter (Inches)</b>		<b>Weed Species</b>	<b>Maximum Weed Height or Diameter (Inches)</b>	
	<b>31.0 fl oz/A (0.40 lbs ai/A)</b>	<b>41.0 fl oz/A<sup>ab</sup> (0.54 lbs ai/A)</b>		<b>31.0 fl oz/A (0.40 lbs ai/A)</b>	<b>41.0 fl oz/A<sup>ab</sup> (0.54 lbs ai/A)</b>
Barley, volunteer <sup>3</sup>	3"	4"	Millet, wild-proso	6"	7"
Barnyardgrass	3"	5"	Millet, proso volunteer	6"	7"

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Bluegrass, annual	3"	5"	Oat, wild <sup>2</sup>	3"	4"
Corn, volunteer <sup>1</sup>	10"	12"	Panicum, fall	3"	5"
Crabgrass, large <sup>2</sup>	3"	5"	Panicum, Texas	4"	6"
Crabgrass, smooth <sup>2</sup>	3"	5"	Rice, red	4"	6"
Cupgrass, woolly	6"	12"	Rice, volunteer <sup>1</sup>	4"	6"
Foxtail, bristly	6"	8"	Sandbur, field <sup>2</sup>	S	2"
Foxtail, giant	6"	12"	Shattercane	6"	8"
Foxtail, green	6"	12"	Signalgrass, broadleaf	3"	5"
Foxtail, robust purple	6"	8"	Sprangletop	4"	6"
Foxtail, yellow <sup>2</sup>	3"	4"	Sorghum, volunteer	6"	8"
Goosegrass <sup>3</sup>	2"	3"	Stinkgrass	4"	6"
Johnsongrass, seedling	3"	5"	Wheat, volunteer <sup>2</sup>	4"	5"
Junglerice	3"	5"	Witchgrass	4"	6"

<sup>a</sup> In cotton, this product may be applied at 41.0 fl oz/A (0.54 lbs ai/A) three times per year.

<sup>b</sup> Do not apply more than 31.0 fl oz/A (0.40 lbs ai/A) of this product post emergence in a single application to canola and corn.

S Indicates suppression

<sup>1</sup> Volunteer LibertyLink crops from the previous season will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application is specified for controlling dense clumps of volunteer corn.

<sup>2</sup> For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

<sup>3</sup> A sequential application may be necessary for control.

BIENNIAL AND PERENNIAL WEEDS**		
For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of this product are specified (31.0 fl oz/A (0.40 lbs ai/A) followed by 31.0 fl oz/A (0.40 lbs ai/A)).		
Alfalfa	Clover, Alsike	Nutsedge, purple*
Artichoke, Jerusalem	Clover, red	Nutsedge, yellow*
Bermudagrass	Dandelion	Orchardgrass
Bindweed, field	Dock, smooth	Poinsettia, wild
Bindweed, hedge	Dogbane, hemp*	Pokeweed
Bluegrass, Kentucky	Goldenrod, gray*	Quackgrass*
Blueweed, Texas	Johnsongrass, rhizome	Sowthistle, perennial
Bromegrass, smooth	Milkweed, common*	Thistle, bull
Burdock	Milkweed, honeyvine*	Thistle, Canada
Bursage, woolyleaf	Muhly, wirestem*	Timothy*
Chickweed, Mouse-ear	Nightshade, silverleaf	Wormwood, biennial

\* Suppression Only

\*\* See the "Applications for directions for Use on Cotton" section of this label for additional use rates.

### APPLICATION AND MIXING PROCEDURES

Do not use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment. Uniform, thorough spray coverage is important to achieve consistent weed control.

#### Ground application

Refer to the *Rate Tables for* proper application rates. THIS PRODUCT needs to be applied broadcast in a minimum of 10 gallons of water per acre using minimum spray pressure of 40 psi and a maximum ground speed of 10 mph. The use of 80 degree or 110 degree flat fan nozzles is highly advised for optimum spray coverage and canopy penetration. Application of the spray at a 45-degree angle forward will result in better spray coverage. Under dense weed/crop canopies, a broadcast rate of 15-20 gallons of water per acre needs to be used so that thorough spray coverage will be obtained. DO NOT use raindrop nozzles. See the *Spray Drift Management section* of this label for additional information on proper application of THIS PRODUCT.

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#### Aerial Application

Poor coverage will result in reduced weed control. For optimal weed control, apply THIS PRODUCT in a minimum of 10 gallons per acre. See the *Spray Drift Management* section of this label for additional information on proper application of THIS PRODUCT.

#### COMPATIBILITY TESTING

If THIS PRODUCT is to be mixed with pesticide products not listed on this label, test the compatibility of the intended tank mixture prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 25 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

1. Place 1.0 pint of water from the source that will be used to prepare the spray solution in a clear 1-quart jar.
2. For each pound of a dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
3. For each 16 fl oz of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
4. For each 16 fl oz of THIS PRODUCT to be applied per acre, add 0.5 teaspoon to the jar.
5. After adding all the ingredients, place a lid on the jar and tighten. Invert 10 times to mix.
6. Let the mixture stand for 15 minutes, and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, do not use the mixture in a spray tank.
7. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the *Storage and Disposal* section of this label.

#### MIXING INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Tank Mix Instructions

THIS PRODUCT may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. THIS PRODUCT cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and other restrictions.

THIS PRODUCT must be applied with properly calibrated and clean equipment. THIS PRODUCT is formulated to mix readily in water.

Prior to adding THIS PRODUCT to the spray tank, ensure that the spray tank is thoroughly clean, particularly if a herbicide with the potential to injure crops was previously used (see *Cleaning Instructions*).

Mix THIS PRODUCT with water to make a finished spray solution as follows:

1. Fill the spray tank half full with water.
2. Start agitation.
3. If mixing with a flowable/wettable powder tank mix partner. Prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry to the spray tank
4. Add the appropriate amount of ammonium sulfate (AMS) to the spray tank.
5. If mixing with a liquid tank mix partner, add the liquid mix partner next.
6. Complete filling the spray tank with water.
7. Add the proper amount of THIS PRODUCT and continue agitation.
8. If foaming occurs, use a silicone-based antifoam agent.

Ensure that all spray system lines including pipes, booms, etc. have the correct concentration of spray solution by flushing out the spray system lines before starting the crop application.

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If tank mix partners specified on this label are added, maintain good agitation at all times until contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzles or line strainers must be 50 mesh or larger.

**CLEANING INSTRUCTIONS**

Before using THIS PRODUCT, thoroughly clean bulk storage tank, refillable tank, nurse tanks, spray tank, lines, and filter, particularly if a herbicide with the potential to injure crops was previously used. Equipment must be thoroughly rinsed using a commercial tank cleaner.

After using THIS PRODUCT, triple rinse the spray equipment and clean with a commercial tank cleaner before using for crops not labeled Libertylink. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

**APPLICATION DIRECTIONS FOR BURNDOWN USE**

THIS PRODUCT may be applied as a burndown treatment prior to planting or prior to emergence of any conventional or LibertyLink variety of canola, corn, cotton, soybean or sugar beet.

Apply a minimum of 41 fl oz/A (0.54 lbs ai/A) of THIS PRODUCT for burndown of existing weeds just prior to planting or prior to emergence of canola, corn, cotton, soybean, or sugar beets. For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of THIS PRODUCT. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Make only one burndown application.

- In cotton: if environmental conditions prevent timely applications, a single application may be made of up to 60 fl oz/A (0.78 lbs ai/A) of THIS PRODUCT. If more than 41 fl oz/A (0.54 lbs ai/A) are used in any single application, the yearly total may not exceed 101 fl oz/A (1.32 lbs ai/A), including all application timings. Make only one burndown application.
- In soybean: if environmental conditions prevent timely applications, a single application may be made of up to 50 fl oz/A (0.65 lbs ai/A) of THIS PRODUCT. If 41-50 fl oz/A (0.54-0.65 lbs ai/A) are used in a single burndown application, one additional in-season application maybe made at up to 41 fl oz/A (0.54 lbs ai/A). The yearly total may not exceed 91 fl oz/A (1.19 lbs ai/A), including all application timings. Make only one burndown application.
- In canola, corn, and sugar beets: if environmental conditions prevent timely applications, a single application may be made of up to 50 fl oz/A (0.65 lbs ai/A) of THIS PRODUCT. No additional applications of THIS PRODUCT may be made post emergence to the crop during the growing year. Make only one burndown application.

	<b>Burndown</b>	<b>In-Season Applications (LibertyLink Varieties only)</b>	<b>Year Max</b>
Cotton Use Pattern 1	41.0 fl oz/A (0.54 lbs ai/A)	2 applications at 31.0 to 41.0 fl oz/A* (0.4 to 0.54 lbs ai/A)  Sequential applications must be at least 10 days apart.	122.0 fl oz/A (1.59 lbs ai/A)
Cotton Use Pattern 2	42.0 to 60.0 fl oz/A (0.55 to 0.78 lbs ai/A)	1 application at 31.0 to 41.0 fl oz/A* (0.4 to 0.54 lbs ai/A)	101.0 fl oz/A (1.32 lbs ai/A)
Soybean Use Pattern	41.0 to 50.0 fl oz/A (0.53 to 0.66 lbs ai/A)	1 application at 31.0 to 41.0 fl oz/A** (0.4 to 0.54 lbs ai/A)	91.0 fl oz/A (1.19 lbs ai/A)
Canola, Corn, Sugar beets	41.0 to 50.0 fl oz/A (0.53 to 0.66 lbs ai/A)	None	50.0 fl oz/A (0.66 lbs ai/A)

\*Libertylink cotton OR with hooded sprayer for non-Libertylink varieties (see **Cotton** use directions).

\*\*Libertylink soybeans only (see **Soybean** use directions).

**APPLICATION DIRECTIONS FOR USE ON SUGAR BEETS**  
**[NOT FOR USE IN CALIFORNIA]**

THOROUGH SPRAY COVERAGE IS VERY IMPORTANT. This product works best when weeds are actively growing. A cultivation may be made at least 5 days before THIS PRODUCT application or 5 days after THIS PRODUCT application.

**APPLICATION TIMING**

Applications of THIS PRODUCT on sugar beets may be made from the cotyledon stage up to the 10-leafstage of the sugar beet. THIS PRODUCT is a foliar-active material with no soil-residual activity. For best results, apply to emerged, young actively growing weeds. Weeds that emerge after application will not be controlled. THIS PRODUCT will have an effect on weeds that are larger than the specified leaf stage, however speed of activity and control may be reduced. Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness. This product is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

For best weed control and sugar beet yield, this products application needs to begin when weeds are up to 1 inch in height or diameter. Repeat applications needs to be made when newly germinated weeds again reach 1 inch in height or diameter. Refer to the *Rate Tables for Weed Control in Sugar Beets* for selection of the proper rate dependent upon the weed species present and size. A repeat application of THIS PRODUCT or a tank mix application with a residual herbicide selected from the tank mix partners listed on this label will be needed to control weeds that have not yet emerged at the time of application.

**RESTRICTIONS TO THE DIRECTIONS FOR USE ON SUGAR BEETS**

1. DO NOT apply more than 42 ounces per acre (0.55 lbs ai/A) of THIS PRODUCT per application.
2. DO NOT apply more than 84 fluid ounces per acre (1.1 lbs ai/A) of this production to sugar beets per year.
3. DO NOT apply this product within 60 days of harvesting sugar beets.
4. DO NOT make more than two applications of THIS PRODUCT per year.
5. Allow a minimum of 10 days between applications.
6. DO NOT plant rotation crops in a field treated with this product within 120 days after the last application of this product with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale which may be planted 70 days after the last application of this product. LibertyLink corn, soybeans, canola, and sugar beets may be planted anytime.
7. DO NOT graze the treated crop or cut for hay.
8. DO NOT add surfactants. Anti-foams or drift control agents may be added if needed.
9. DO NOT apply this product if sugar beets show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
10. DO NOT apply this product through any type of irrigation system.

**SUGAR BEET TANK MIX INSTRUCTIONS**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

THIS PRODUCT may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the canola to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded GLUFOSINATE 280 Herbicide cannot be mixed with any product containing a label prohibition against such mixing.

**RATE TABLES FOR WEED CONTROL IN SUGAR BEETS**

The rate of this product in fluid ounces (pints) of formulated product per acre is to be used for the control of weeds at selected heights are shown in the following tables. In weed populations with mixed species, apply the rate needed for all species present.

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**GRASS WEEDS CONTROLLED WITH THIS PRODUCT**

Weed Species	Growth Stage of Weed* (Maximum Height)		Comments on Weed Growth Stage/ Application Timing/ Number of Applications
	21.0 fl oz/A (0.27 lbs ai/A) (0.9 pt/A)	28.0 fl oz/A (0.37 lbs ai/A) (1.25 pt/A)	
Barley, volunteer	1- to 2-leaf (2")	3-leaf (3")	Multiple applications may be required
Barnyardgrass	1- to 3-leaf (2")	4- to 5-leaf (3")	Maximum of 1 tiller
Corn, volunteer	1- to 2-leaf (3")	3- to 4-leaf (6")	---
Crabgrass, large	1- to 3-leaf (2")	4- to 5-leaf (3")	Maximum of 1 tiller
Crabgrass, smooth	1- to 3-leaf (2")	4- to 5-leaf (3")	Maximum of 1 tiller
Cupgrass, woolly	1- to 5-leaf (4")	(8")	---
Foxtail, giant	1- to 4-leaf (3")	5- to 6-leaf (4")	Maximum of 2 tillers
Foxtail, green	1- to 4-leaf (3")	5- to 6-leaf (4")	Maximum of 2 tillers
Foxtail, yellow	1- to 3-leaf (1")	4-leaf (2")	Apply prior to tillering
Millet, volunteer proso	1- to 3-leaf (2")	4- to 5-leaf (3")	Maximum of 1 tiller
Millet, wild proso	1- to 3-leaf (2")	4- to 5-leaf (3")	Maximum of 1 tiller
Oat, wild	1- to 2-leaf (2")	3-leaf (3")	Maximum of 1 tiller
Panicum, fall	1- to 3-leaf (2")	4- to 5-leaf (3")	Maximum of 1 tiller
Panicum, Texas	1- to 3-leaf (2")	4- to 5-leaf (3")	Maximum of 1 tiller
Sandbur field	--	1- to 4-leaf (2")	Apply prior to tillering
Wheat volunteer	1- to 2-leaf (2")	3-leaf (3")	Maximum of 1 tiller

\* Apply up to 42 fl oz/A (0.55 lbs ai/A) (2.63 pt/A) if weeds exceed the growth stage shown in the table.

For improved control of heavy populations or larger than specified volunteer wheat, volunteer barley, yellow foxtail, and wild oats, this product can be tank mixed with Quizalofop-P-Ethyl, Sethoxydim, and Clethodim.

**PERENNIAL WEEDS CONTROLLED BY THIS PRODUCT**

Weed Species	Growth Stage of Weed* (Maximum Height/Diameter)		Comments on Number of Applications
	21.0 fl oz/A (0.27 lbs ai/A) (0.9 pt/A)	28.0 fl oz/A (0.37 lbs ai/A) (1.25 pt/A)	
Quackgrass	-	1- to 3-leaf (3")	Multiple applications required
Sowthistle, perennial	-	1- to 4-leaf (3")	Multiple applications required
Thistle, Canada	-	1- to 4-leaf (3")	Multiple applications required

\* Apply up to 42 fl oz/A (0.55 lbs ai/A) (2.63 pt/A) if weeds exceed the growth stage shown in the table.

**BROADLEAF WEEDS CONTROLLED BY THIS PRODUCT**

Weed Species	Growth Stage of Weed* (Maximum Diameter)	
	21 fl oz/A (0.27 lbs ai/A) (0.9 pt/A)	28 fl oz/A (0.37 lbs ai/A) (1.25 pt/A)
Buckwheat, wild	1- to 4-leaf (2")	5- to 6-leaf (3")
Buffalobur	1- to 4-leaf (2")	5- to 6-leaf (3")
Carpetweed	-	1- to 4-leaf (2")
Chickweed, common	1- to 4-leaf (2")	5- to 6-leaf (3")
Cocklebur, common	1- to 6-leaf (3")	7- to 8-leaf (5")
Kochia	(1")	(2")
Ladysthumb	1- to 2-leaf (1")	3- to 4-leaf (3")
Lambsquarter, common	1- to 2-leaf (1")	4- to 5-leaf (3")
Mallow, Venice	1- to 4-leaf (2")	5- to 6-leaf (3")

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Marshelder	1- to 2-leaf (1")	3- to 4-leaf (2")
Mustard, wild	1- to 4-leaf (2")	5- to 6-leaf (3")
Nightshade, eastern black	1-- to 4-leaf (2")	5- to 6-leaf (3")
Pigweed, prostrate	(1")	(3")
Pigweed, redroot	1-- to 2-leaf (1")	3- to 4-leaf (3")
Pigweed, smooth	1- to 2-leaf (1")	3- to 4-leaf (3")
Pigweed, spiny	1- to 2-leaf (1")	3- to 4-leaf (3")
Purslane, common	(1")	(2")
Ragweed, common	1- to 6-leaf (3")	7- to 8-leaf (5")
Ragweed, giant	1- to 4-leaf (2")	5- to 6-leaf (3")
Shepherd's purse	1- to 4-leaf (2")	5- to 6-leaf (3")
Smartweed, Pennsylvania	1- to 2-leaf (1")	3- to 4-leaf (3")
Sowthistle, annual	1- to 4-leaf (2")	5- to 6-leaf (3")
Sunflower common	1- to 6-leaf (3")	7- to 8-leaf (5")
Thistle Russian	(1")	(2")
Velvetleaf	1- to 2-leaf (1")	3- to 4-leaf (3")

\*Apply up to 42 fl oz/A (0.55 lb ai/A) (2.63 pt/A) if weeds exceed the growth stage shown in the table

**APPLICATION DIRECTIONS FOR USE ON LIBERTYLINK® CANOLA**

Apply THIS PRODUCT only to canola labeled as Libertylink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**APPLICATION RATE AND TIMING**

For best results, apply to emerged, young, actively growing weeds: Warm temperatures, high humidity, and bright sunlight improve the performance of this product. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

Applications of this product on canola may be made from the cotyledon stage up to the early bolting stage of the canola. Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.

Apply this product at 31 fl oz/A (0.4 lbs ai/A) per application. A second application of this product may be needed to control weeds that have not yet emerged at the time of application.

**RESTRICTIONS TO THE DIRECTIONS FOR USE ON CANOLA CONTAINING THE LIBERTYLINK® TRAIT**

- DO NOT use on canola in the states of Alabama, Delaware, Georgia, Kentucky, Maryland, New Jersey; North Carolina, South Carolina, Tennessee, Virginia and West Virginia.
- DO NOT apply more than two applications of this product per year.
- Sequential applications must be at least 10 days apart.
- DO NOT apply this product within 65 days of harvesting canola.
- DO NOT apply more than 31 fl oz/A (0.4 lbs ai/A) of THIS PRODUCT per application.
- DO NOT apply more than 62 fl oz/A (0.8 lbs ai/A) of THIS PRODUCT per year.
- If THIS PRODUCT was used in a burndown application, no post emergence applications may be applied to the crop.
- DO NOT graze the treated crop or cut for hay.
- DO NOT apply this product if canola shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- DO NOT apply this product through any type of irrigation system:

Refer to the "Rotational Crop Restrictions" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

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SPRAY ADDITIVES

THIS PRODUCT must be applied with ammonium sulfate (AMS). Use only fine feed grade or spray grade AMS at 3 pounds per acre. Anti-foams or drift control agents may be added if needed. Use of additional surfactants or crop oils may increase risk of crop response.

LIBERTYLINK® CANOLA TANK MIX INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

THIS PRODUCT may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the canola to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. GLUFOSINATE 280 Herbicide cannot be mixed with any product containing a label prohibition against such mixing.

**APPLICATION DIRECTIONS FOR USE ON LIBERTYLINK® SWEET CORN**  
**[NOT FOR USE IN CALIFORNIA]**

Apply THIS PRODUCT only to LibertyLink corn.

APPLICATION TIMING FOR SWEET CORN

Applications for this product on sweet corn may be made from emergence until sweet corn is 24" tall or in the V-7 stage of growth, i.e., 7 developed collars, whichever comes first. Apply at a rate of 28 fl oz/A (0.37 lbs ai/A). This product must be applied with ammonium sulfate (AMS) for use on sweet corn. Two applications of this product can be made to sweet corn in a year.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON SWEET CORN

- DO NOT apply THIS PRODUCT within 50 days of harvesting sweet corn ears and within 55 days of harvesting stover.
- DO NOT apply more than two applications of THIS PRODUCT to sweet corn per year.
- Sequential applications must be at least 10 days apart.
- DO NOT apply more than 28 fl oz/A (0.37 lbs ai/A) of THIS PRODUCT per application.
- DO NOT apply more than 56 fl oz/A (0.73 lbs ai/A) of THIS PRODUCT on sweet corn per year.
- If this product was used in a burndown application, no post emergence applications may be applied to the crop.
- DO NOT use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- DO NOT apply THIS PRODUCT if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- DO NOT apply this product through any type of irrigation system.

Refer to the "*Rotational Crop Restrictions*" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

See "Application Directions for Use on Field Corn and Silage Corn" for "Application Methods", "Mixing Instructions," and "Weed control Tables."

SWEET CORN TANK MIX INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Certain herbicide tank mixes may aid in the performance of THIS PRODUCT. No additional surfactant is needed with any tank mix partner. THIS PRODUCT may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the corn to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. THIS PRODUCT cannot be mixed with any product containing a label prohibition against such mixing.



**APPLICATION DIRECTIONS FOR USE ON LIBERTYLINK® FIELD CORN AND SILAGE CORN**

Apply THIS PRODUCT only to corn labeled as LibertyLink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**APPLICATION RATE AND TIMING**

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of this product. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

Applications of this product on corn may be made with over-the-top broadcast or drop nozzles from emergence until corn is 24 inches tall in the V-7 stage of growth, i.e., 7 developed collars, whichever comes first. For corn 24 inches to 36 inches tall, only apply this product using ground application and drop nozzles and avoid spraying into the whorl or leaf axils of the corn stalks. Applications of this product following the use of soil-applied insecticides will not injure corn.

Apply this product at 31 fl oz/A (0.4 lbs ai/A) per application. A second application of this product or a tank mix application with a residual herbicide will be needed to control weeds that have not yet emerged at the time of application.

**RESTRICTIONS TO THE DIRECTIONS FOR USE ON FIELD CORN, AND SILAGE CORN**

- DO NOT apply this product within 60 days of harvesting corn forage and within 70 days of harvesting corn grain and corn fodder.
- DO NOT apply more than two applications of THIS PRODUCT per year.
- Sequential applications must be at least 10 days apart.
- DO NOT apply more than 31 fl oz/A (0.4 lbs ai/A) of THIS PRODUCT per application.
- DO NOT apply more than 62 fl oz/A (0.8 lbs ai/A) of THIS PRODUCT per year.
- If this product was used in a burndown application, no post emergence applications may be applied to the crop.
- DO NOT use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- DO NOT apply this product if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- DO NOT apply this product through any type of irrigation system.

Refer to the "*Rotational Crop Restrictions*" section under the "*Information*" heading of this label for the appropriate rotational crop plant back intervals.

**SPRAY ADDITIVES**

For corn and sweet corn, this product must be applied with ammonium sulfate (AMS). It is advised to use only fine feed grade or spray grade AMS at 31 lbs per acre (17 lbs/100 gallons). When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs per acre (8.5 lbs/100 gallons) to reduce potential leaf burn.

Use of additional surfactants or crop oils may increase risk of crop response.

**FIELD AND SILAGE CORN TANK MIX INSTRUCTIONS**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Certain herbicide tank mixes may aid in the performance of this product. No additional surfactant is needed with any tank mix partner. This product may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the corn to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

**APPLICATION DIRECTIONS FOR USE ON COTTON**

Uniform, thorough spray coverage is necessary to achieve consistent weed control. This product may be applied as a broadcast, over-the-top, post-emergence spray or as a directed spray only to LibertyLink cotton. This product may be applied post-emergence to all other cotton varieties or cultivars by using equipment designed to minimize contact of the spray with the cotton foliage. See the Application Methods on Cotton section for selection of shielding equipment. Severe plant injury or plant death may result if this product contacts the foliage or stems of cotton NOT labeled as LibertyLink.

**APPLICATION RATE AND TIMING**

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of THIS PRODUCT. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

Apply this product to cotton from emergence up to the early bloom stage at 31 to 41 fl oz/A (0.4 to 0.54 lb ai/A). If environmental conditions prevent a timely herbicide application, a single application of up to 60 fl oz/A (0.78 lb ai/A) of this product may be made to cotton. If more than 41 fl oz/A (0.54 lb ai/A) are used in any single application, the yearly total may not exceed 101 fl oz/A (1.32 lb ai/A), including all application timings. See Restrictions to the Directions for use on Cotton below for additional information.

Refer to the Weed Control Table for Row Crops section of this label for selection of the proper rate dependent upon weed species present and size. In weed populations with mixed species, select the highest rate required to control all the species. Volunteer LibertyLink crop plants (corn, cotton, soybeans, sugar beets) from the previous season will not be controlled by applications of this product. A repeat application of this product or tank mixes with a residual herbicide will be needed to control weeds that have not emerged at the time of application. See the Tank Mix Instructions for Use on Cotton to select suitable tank mix partners.

Use Pattern	1 <sup>st</sup> Application	2 <sup>nd</sup> Application Minimum 10 days after 1 <sup>st</sup> application	3 <sup>rd</sup> Application Minimum 10 days after 2 <sup>nd</sup> application	Year Maximum
Option 1	31-41 fl oz/A (0.4 to 0.54 lb ai/A)	31-41 fl oz/A (0.4 to 0.54 lb ai/A)	31-41 fl oz/A (0.4 to 0.54 lb ai/A)	122 fl oz/A (1.6 lb ai/A)
Option 2	42-60 fl oz/A (0.55 to 0.78 lb ai/A)	31-41 fl oz/A (0.4 to 0.54 lb ai/A)	None	101 fl oz/A (1.32 lb ai/A)

**RESTRICTIONS TO THE DIRECTIONS FOR USE ON COTTON**

- DO NOT apply this product to cotton in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.
- DO NOT apply THIS PRODUCT within 70 days prior to cotton harvest.
- Up to three applications of THIS PRODUCT may be made to cotton per year at a maximum application rate of 41 fl oz/A (0.54 lb ai/A) including burndown.
- DO NOT apply more than 122 fl oz/A (1.6 lb ai/A) (including all application timings) to cotton per year under this application scenario.
- Sequential applications must be at least 10 days apart.
- If environmental conditions prevent timely applications resulting in large weeds or heavy infestations, a single application of THIS PRODUCT at up to 60 fl oz/A (0.78 lb ai/A) may be made to cotton. DO NOT apply more than 60 fl oz/A (0.78 lb ai/A) of THIS PRODUCT in a single application under this use scenario. If a single application greater than 41 fl oz/A (0.54 lb ai/A) is made, a subsequent application not to exceed 41 fl oz/A (0.54 lb ai/A) may be made to cotton. The yearly total use rate under this scenario may not exceed 101 fl oz/A (1.32 lb ai/A) of THIS PRODUCT (including burndown). Sequential applications need to be at least 10 days apart.
- DO NOT apply this product through any type of irrigation system.

Refer to the "Rotational Crop Restrictions" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

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APPLICATION METHODS TO LIBERTYLINK® COTTON

Refer to the Weed Control Table for Row Crops to select the proper application rate based upon the weeds present and their size. Uniform and thorough spray coverage is required to achieve consistent weed control. For ground application, apply THIS PRODUCT to LibertyLink cotton as an over-the-top foliar spray or as a spray directed to the lower one-third of the cotton stand.

APPLICATION METHODS TO COTTON

Application of THIS PRODUCT to cotton varieties not labeled as LibertyLink requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. A hooded sprayer directs the spray onto weeds, while shielding the cotton stand from contact. Use nozzles that provide uniform coverage within the treated area. Keep hoods on these sprayers adjusted to protect desirable vegetation. Extreme care must be exercised to avoid exposure of the desirable vegetation to the spray.

With a hooded sprayer, the spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground. If the hoods are raised, spray particles may escape and come into contact with the cotton, causing damage or destruction of the crop.

Herbicide rates and spray volume Instructions are presented as broadcast equivalents and must be reduced in proportion to the area actually treated. Use the following formulas to calculate the correct rate and volume per planted (field) acre:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast RATE per acre} = \text{Amount of banded product needed per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast spray VOLUME per acre} = \text{Banded spray volume needed per acre}$$

POST-HARVEST

THIS PRODUCT may be applied as a post-harvest burndown treatment to fields (after cotton harvest).

Up to 60 fl oz/A (0.78 lb ai/A) of THIS PRODUCT may be applied in a single application to control larger weeds growing in the crop at the time of harvest.

If more than 41 fl oz/A (0.54 lb ai/A) is used in a single application, the yearly total may not exceed 101 fl oz/A (1.32 lb ai/A), including all application timings.

Refer to the *Rotational Crop Restrictions* section of this label for appropriate rotational crop information.

COTTON TANK MIX INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Certain tank mixes may aid in the performance of this product. No additional surfactant is needed with any tank mix partner. This product may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the cotton to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. THIS PRODUCT cannot be mixed with any product containing a label prohibition against such mixing.

**APPLICATION DIRECTIONS FOR USE ON LIBERTYLINK® SOYBEANS**

Apply THIS PRODUCT only to soybean designated as LibertyLink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**APPLICATION RATE AND TIMING**

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of this product. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Adding ammonium sulfate with this product may improve weed control if weeds are under stress. For optimal yield, early season weed removal is important.

Applications of this product on soybeans may be made from emergence up to but not including the bloom growth stage.

Apply this product to LibertyLink soybeans from emergence up to but not including the bloom growth stage at 31 to 41 fl oz/A (0.4 to 0.54 lb ai/A). See weed chart to determine rate. If environmental conditions prevent a timely herbicide application, a single application of up to 50 fl oz/A (0.65 lb ai/A) of this product may be made to soybeans followed by one additional application at a maximum of 41 fl oz/A (0.54 lb ai/A) with a yearly maximum of 91 fl oz/A (1.2 lb ai/A). This product may be applied alone, or in a tank mix application with a residual herbicide to control weeds that have not yet emerged at the time of application.

Although timely post applications of this product can provide complete weed control, residual herbicides at burndown, planting, or tank mixed with this product help ensure optimal weed management, particularly if environmental conditions delay timely post applications. Residual herbicides can also reduce early season weed competition and are a key element of good weed resistance management practices.

Use Pattern Rate Ranges		
1 <sup>st</sup> Application	2nd Application	Year Maximum
31.0 to 50.0 fl oz/A (0.4 to 0.66 lbs ai/A)	31.0 to 41.0 fl oz/A (0.4 to 0.53 lbs ai/A)	91.0 fl oz/A (1.19 lbs ai/A)

**RESTRICTIONS TO THE DIRECTIONS FOR USE ON SOYBEANS**

- DO NOT apply this product within 70 days of harvesting soybean seed.
- DO NOT apply more than 91 fl oz/A (1.2 lb ai/A) of this product on soybeans per year.
- DO NOT apply more than 50 fl oz/A (0.65 lb ai/A) of this product in a single application.
- DO NOT make more than two applications of this product per year (three applications per year including burndown).
- DO NOT graze the treated crop or cut for hay.
- DO NOT use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- DO NOT apply this product if soybeans show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- DO NOT apply this product through any type of irrigation system.
- Sequential applications must be at least 5 days apart.

Refer to the "Rotational Crop Restrictions" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

**SOYBEAN TANK MIX INSTRUCTIONS**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Certain herbicide tank mixes may complement this product. No additional surfactant is needed with any tank mix partner. This product may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the soybean to be treated. The tank mix partner must be used in accordance with the label

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limitations and precautions. No label dosage rates may be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

**APPLICATION DIRECTIONS FOR CANOLA, CORN, COTTON, AND SOYBEAN SEED PROPAGATION**

This product may be applied to select out susceptible "segregates," i.e., canola, corn, cotton, and soybean plants that are sensitive to glufosinate-ammonium during seed propagation.

- Canola: This product may also be used in canola seed propagation as a foliar spray to selectively eliminate canola plants that do not carry the LibertyLink trait and as such, can be applied to remove susceptible segregates during canola seed propagation. Breeding material not possessing the LibertyLink trait will be severely injured or killed if treated with this herbicide. See *Application Use Directions for Use on Canola* for use rates and application timing.
- Corn: Inbred lines, plants not possessing the LibertyLink trait, will be severely injured or killed if treated with this herbicide. A hooded sprayer may be used to protect plants from coming into contact with the herbicide application. For the selection of LibertyLink corn "segregates", this product may be applied at 31 fl oz/A (0.4 lb ai/A) plus AMS at 3 lb/A (17 lb/100 gallons) when corn is in the V-3 to V4 stage of growth, i.e., 3 to 4 developed collars. A second treatment of 31 fl (0.4 lb ai/A) oz/A plus AMS at 3 lbs/A may be applied when the corn is in the V-6 to V-7 stage of growth or up to 24" tall. Sequential applications must be at least 10 days apart. When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs/A (8.5lbs/100 gallons) to reduce potential leaf burn. See *Application Use Directions for Use on Corn*.
- Cotton: This product may also be used in cottonseed propagation as a foliar spray to selectively eliminate cotton plants that do not carry a the LibertyLink trait and as such, can be applied to remove susceptible segregates during cottonseed propagation. Breeding material not possessing the LibertyLink trait will be severely injured or killed if treated with this herbicide. See *Application Use Directions for Use on Cotton* for use rates and application timing.
- Soybeans: For the selection of LibertyLink soybean "segregates", this product may be applied at up to 31 to 50 fl oz/A (0.4 to 0.65 lb ai/A) when soybean is in the third trifoliolate stage. A second treatment of 31 to 41 fl oz/A (0.4 to 0.54 lb ai/A) may be applied up to but not including the bloom growth stage of soybean. Sequential applications must be at least 5 days apart.

**APPLICATION DIRECTIONS FOR USE ON LISTED TREE, VINE, AND BERRY CROPS**

Apply this to the tree, vine, and berry crops listed below. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

REGISTERED CROPS

- Bushberry. Crop Subgroup 13B: blueberry, currant, elderberry, gooseberry, and huckleberry
- Other Berries: Lingonberry, juneberry, and salal
- Citrus Fruit: Crop Group 10-10: lemon, orange, grapefruit, lime, mandarin, tangerine, tangelo, calamondin, kumquat, pummelo, citron and tangor; cultivars varieties and/or hybrids of these
- Olives
- Pome Fruit. Crop Group 11-10: apple, pears, crabapple, loquat, mayhaw, quince, azarole, medlar and tejocote; cultivars, varieties and/or hybrids of these
- Stone Fruit. Crop Group 12-12: apricot, cherry, peach, nectarine, plum, capulin, jujube and sloe; cultivars varieties and/or hybrids of these
- Tree Nuts. Crop Group 14: almonds, filberts, hickory nuts, macadamia nuts (bush nuts), pecans, pistachios, and walnuts
- Vineyards: all grape varieties (table, wine, and raisins)

APPLICATION RATE AND TIMING

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of this product. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application at the highest specified label use rate.

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Stressed conditions also include prior treatments of other contact or systemic herbicides. Do not retreat these weeds with this product until sufficient regrowth has occurred.

Apply this product as a directed spray to control undesirable vegetation in tree, vine, and berries listed on this label. Apply as a broadcast, banded, or spot treatment application depending on the situation to control weeds listed under the heading "Weeds Controlled in Tree, Vine and Berry crops." Avoid direct spray or drift to desirable vegetation. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat applications of this product may be necessary to control plants generating from underground parts or seed.

Avoid contact of this product solution, spray, drift or mist with green bark, stems, or foliage, as injury may occur to trees, vines, and berries. Only trunks with callused, mature brown bark must be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. Contact of this product with parts of trees, vines, or berries other than mature brown bark can result in serious damage.

**Application Methods for Broadcast Applications**

Apply THIS PRODUCT at the rates listed below for broadcast applications based on weed size and stage of growth.

Weed Size and Stage	Product rate
Weeds < 3" in height	67 fl oz/A (0.87 lbs ai/A)
Weeds < 6" in height pre-tiller grasses	78 fl oz/A (1.02 lbs ai/A)
Weeds < 6" in height and/or grasses that have tillered	78-115 fl oz/A (1.02-1.5 lbs ai/A)

**Application Methods for Banded Spray Applications**

Banded applications may be used using the following formula to calculate the amount of herbicide needed for orchard or vineyard strip sprays:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Rate per acre broadcast} = \text{Amount of herbicide needed for treatment}$$

**Application Methods for Spot or Directed-Spray Applications**

For spot or directed spray applications by backpack sprayers only (no mechanically pressured handgun applications allowed): mix this product at 1.7 fl oz of (0.031 lbs ai/A) product per gallon of water. Apply to undesirable vegetation foliage until wet but prior to runoff. Ensure uniform and complete coverage. Thoroughly clean the sprayer following use. DO NOT make spot or directed spray applications to tree or vine trunk as injury may occur.

Weeds Controlled in Tree, Vine and Berry crops

**Broadleaf Weeds**

Alkali sida	Fleabane, annual	Morningglory, ivyleaf	Srnartweed, Pennsylvania
Ammannia, purple	Goosefoot	Morningglory, pitted	Sowthistle, annual
Arrowhead, California	Gromwell, field	Mullein, turkey	Spurge, prostrate
Buckwheat, wild	Groundcherry, cutleaf	Mustard, wild	Starthistle, yellow
Buffalobur	Groundsel, common	Nettle	Sunflower, common
Burclover, California	Henbit	Nightshade, black	Sunflower, prairie
Carpetweed	Jimsonweed	Nightshade, eastern black	Sunflower, volunteer
Chickweed, common	Knotweed	Nightshade, hairy	Swinecress
Chinese thornapple	Kochia	Pennycress	Thistle, Russian
Cocklebur, common	Lambsquarters, common	Pigweed, redroot	Turnip, wild
Copperleaf, Virginia	Lettuce, miner's	Pineapple weed	Velvetleaf
Cudweed	Lettuce, prickly	Puncturevine	Vervain
Cutleaf eveningprimrose	London rocket	Purslane, common	Vetch
Dodder	Mallow, common	Radish, wild	Virginia copperleaf
Eclipta	Malva (little mallow)	Ragweed, common	Willowherb panicle

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Fiddleneck	Marestail	Ragweed, giant
Filaree	Mayweed	Redmaids
Filaree, redstem	Morningglory, entireleaf	Shepherd's-Purse

**Grass Weeds**

Barnyardgrass	Crabgrass, smooth	Junglerice	Shattercane
Bluegrass, annual	Cupgrass, woolly	Oat, wild	Sprangletop
Brome, riggut	Foxtail, giant	Panicum, fall	Stinkgrass
Bromegrass, downy	Foxtail, green	Panicum, Texas	Wheat, volunteer
Canarygrass	Foxtail, yellow	Rush, toad**	Windgrass
Chess, soft	Goosegrass	Ryegrass, annual*	Witchgrass
Crabgrass, large	Johnsongrass, seedling	Sandbur, field	

**Biennial and Perennial Weeds**

Aster, white heath	Dallisgrass	Mustard, tansy	<i>Rubus</i> spp.
Bindweed, field	Dandelion	Nutsedge, purple	Spurge, leafy
Bindweed, hedge	Dock, curly	Nutsedge, yellow	Thistle, bull
Bluegrass, Kentucky	dogbank (hemp)	Onion, wild	Thistle, musk
Bromegrass, smooth	Fescue	Orchardgrass	Torpedograss
Bulrush**	Golden rod, gray	Paragrass	Vaseygrass
Burdock	Guineagrass	Plantain	Woodsorrel
Canada thistle	Horsetail	Poison ivy/oak	Yarrow, common
Clover, Alsike	Lovegrass	Quackgrass	
Clover, red	Mugwort	Rocket, yellow	
Clover, white	Mullein, common	Rose, wild	

\* apply to annual ryegrass prior.to 3 inches in height

\*\* indicates suppression

**RESTRICTIONS TO THE DIRECTIONS FOR USE ON TREE, VINE, AND BERRY CROPS**

- DO NOT apply more than 230 fl oz of this product per acre (3 lbs ai/A) to berry bushes and stone fruit in a 12-month period.
- DO NOT apply more than 345 fl oz (4.5 lbs ai/A) of this product per acre to tree nuts, vines, pome fruit, citrus, and olives in any calendar year.
- DO NOT make more than 2 applications at a maximum rate of 115 fl oz per acre (1.5 lb ai/A) per application to berry bushes and stone fruit.
- DO NOT make more than 3 applications at a maximum rate of 115 fl oz per acre (1.5 lb ai/A) per application to tree nuts, vines, pome fruit citrus and olives.
- DO NOT graze harvest, and/or feed treated orchard cover crops to livestock.
- DO NOT apply this product through any type of irrigation system.
- DO NOT apply this product aerially to tree, berry, or vine crops.
- DO NOT apply this product within 14 days of nut, fruit, berry, or grape harvest.
- Applications to citrus fruits, pome fruits and olives must be a minimum of 14 days apart.
- Applications to stone fruit must be a minimum of 28 days apart:
- DO NOT make spot spray applications to suckers, as tree injury may occur.

**SUCKER CONTROL WITH THIS PRODUCT**

This product will reduce or eliminate sucker growth when applied to suckers that are young, green, and uncallused. For sucker control, apply a split application approximately 4 weeks apart at 78 fl oz of product/A (1.02 lbs ai/A). Coverage of all sucker foliage is necessary for optimum control. Suckers should not exceed 12 inches in length.

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TANKMIX PARTNER INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

This product does not provide residual weed control or control of unexposed plant parts. Certain herbicide tank mixes may aid in the performance of this product or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. This product may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

**APPLICATION DIRECTIONS FOR POTATO VINE DESSICATION**

APPLICATION RATE AND TIMING

Apply this product at the beginning of natural senescence of potato vines. Apply 29 fl oz/A (0.38 lbs ai/A). Do not split this application or apply more than one application per harvest. Potato varieties with heavy or dense vines may require an application of another desiccation product to complete vine desiccation.

Thorough coverage of the potato vines to be desiccated is essential. Use a sufficient volume of water (20 to 100 gpa) to obtain a thorough coverage of the potato vines. Vary the gallons of water per acre and the spray pressure as indicated by the density of the potato vines to assure thorough spray coverage. Increase the spray volume to at least 30 gallons of water per acre when the potato vine canopy is dense or under cool and dry conditions. Apply THIS PRODUCT with the spray boom as low as possible to achieve thorough coverage of the potato vines for best control and to minimize drift potential.

RESTRICTIONS TO THE DIRECTIONS FOR USE IN POTATO VINE DESICCATION

- DO NOT apply more than 29 fl oz/A (0.38 lbs ai/A) to potato vines per year. DO NOT split this application or apply more than one application per harvest.
- DO NOT harvest potatoes until 9 days or more after application of this product.
- DO NOT apply to potatoes grown for seed.
- Canola, corn, cotton, soybean, and sugar beets may be planted at any time after the application of this product as a potato vine desiccant.
- DO NOT plant treated areas to wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale until 30 or more days after an application of this product as a potato vine desiccant.
- DO NOT plant treated areas to crops other than those listed in this use precautions section until 120 or more days after an application of this product as a potato vine desiccant.

**FALLOW FIELDS OR POST HARVEST**

This product may be used as a substitute for tillage to control or suppress weeds in the grass, broadleaf and biennial/perennial weed tables in this label. Applications may be made in fallow fields, post-harvest, prior to planting or emergence of any crop listed on this label.

Apply this product 31 or 41 fl oz/A (0.40 or 0.54 lbs ai/A) to fallow fields to control specific weeds. This product must be applied with ammonium sulfate.



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RESTRICTIONS:

- Do not apply more than 41 fl oz/A (0.54 lbs ai/A) THIS PRODUCT per application.
- Do not make more than 1 application of THIS PRODUCT per year.

Tank mixes with 2,4-D, glyphosate or atrazine are advised with This product to enhance total weed control. When using this product in tank mix combinations, follow the precautions and directions of use of the most restrictive label. See Application and Mixing Procedures section of this label for additional information on how to apply this product. See the “information” section of this label for rotational crop restrictions.

**FARMSTEADS, RECREATIONAL, AND PUBLIC AREAS**

When applied as directed, this product controls undesirable plant vegetation in non-crop areas around farmstead building foundations, shelter belts, along fences, airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks.

Refer to the “APPLICATION DIRECTIONS FOR USE ON LISTED Tree, Vine, and Berry Crops” for appropriate application broadcast and spot spray application rates and lists weeds controlled.

RESTRICTIONS:

- Do not apply more than 345 fl oz (4.5 lbs ai/A) of this product per acre per year.
- Do not make more than 3 applications at a maximum rate of 115 fl oz (1.5 lbs ai/A) per acre per application.
- Re-treatment Interval must be at least 14 days.
- Do not allow grazing of treated vegetation.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature must not exceed 125 °F. If storage temperature for bulk of LPI Glufosinate 280 is below 32°F, the material **must not be pumped until its temperature exceeds 32 °F. Protect against direct sunlight.**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of LPI Glufosinate 280 may be disposed of on-site or at an approved waste disposal facility.

**CONTAINER HANDLING: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**For packages up to 5 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into

application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**For refillable containers:** Refill this container with LPI Glufosinate 280 only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.**

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**BEFORE BUYING OR USING THIS PRODUCT**, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

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